



PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Elliott Richelson et al. Art Unit: 1635
Serial No.: 09/016,685 Examiner: Sean McGarry
Filed : January 30, 1998
Title : USING POLYAMIDE NUCLEIC ACID OLIGOMERS TO ENGENDER A
 BIOLOGICAL RESPONSE

Assistant Commissioner for Patents
Washington, DC 20231

DECLARATION UNDER 37 CFR §1.132 OF ELLIOTT RICHELSON

I, Elliott Richelson, declare as follows:

1. That I am a citizen of the United States and presently live at 109 Teal Pointe Lane, Ponte Vedra Beach, FL 32082-1936;
2. That I am presently employed by Mayo Foundation, and have been so employed since 1975;
3. That I received a Doctor of Medicine Degree from Johns Hopkins University, School of Medicine, Baltimore, MD;
4. That I am an inventor on the above-indicated patent application;

Date of Deposit

September 3, 1999
I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Judy Wasiluk
Judy Wasiluk

5. That I, my co-inventors, or individuals under our supervision, selected the sequence for the NTR1-PNA oligomer described in the above-indicated patent application. The NTR1-PNA oligomer was the first PNA oligomer targeting the non-coding strand of rat neurotensin-1 receptor that I, my co-inventors, or individuals under our supervision, administered to a mammal. As described in the above-indicated patent application, a sequence specific biological response was detected after the *in vivo* administration of the NTR1-PNA oligomer. In addition, the NTR1-PNA oligomer was the first PNA oligomer of any kind that I, my co-inventors, or individuals under our supervision, orally administered to a mammal. As described in the above-indicated patent application, a sequence specific biological response was detected after the oral administration of the NTR1-PNA oligomer;

6. That I, my co-inventors, or individuals under our supervision, selected the sequence for the MU1R-PNA oligomer described in the above-indicated patent application. The MU1R-PNA oligomer was the first PNA oligomer targeting the non-coding strand of rat mu-1 morphine receptor that I, my co-inventors, or individuals under our supervision, administered to a mammal. As described in the above-indicated patent application, a sequence specific biological response was detected after the *in vivo* administration of the MU1R-PNA oligomer;

7. That I, my co-inventors, or individuals under our supervision, selected the sequence for the SERT-PNA oligomer described in the above-indicated patent application. The SERT-PNA oligomer was the first PNA oligomer targeting the non-coding strand of rat plasma membrane serotonin transporter that I, my co-inventors, or individuals under our supervision, administered to a mammal. As described in the above-indicated patent application, a sequence specific biological response was detected after the *in vivo* administration of the SERT-PNA oligomer;

8. That I, my co-inventors, or individuals under our supervision, selected the sequence for the sense-NTR1-PNA oligomer described in International Patent Application number PCT/US98/21888 filed October 16, 1998 (WO 99/20643). The sense-NTR1-PNA oligomer was the first PNA oligomer targeting the coding strand of rat neurotensin-1 receptor that I, my co-inventors, or individuals under our supervision, administered to a mammal. As described in the International Patent Application number PCT/US98/21888, a sequence specific biological response was detected after the *in vivo* administration of the sense-NTR1-PNA oligomer;

9. That I, my co-inventors, or individuals under our supervision, selected the sequence for the mismatch-NTR1-PNA oligomer described in International Patent Application number PCT/US98/21888 filed October 16, 1998 (WO 99/20643). The mismatch-NTR1-PNA oligomer was the first PNA oligomer targeting the non-coding strand of rat neurotensin-1 receptor and containing a mismatch that I, my co-inventors, or individuals under our supervision, administered to a mammal. As described in the International Patent Application number PCT/US98/21888, a sequence specific biological response that was modulated with respect to the responses engendered by the NTR1-PNA oligomer was detected after the *in vivo* administration of the mismatch-NTR1-PNA oligomer;

10. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the instant patent application or any patent issuing thereon.

Dated: 8-6-99

Elliott Richelson
Elliott Richelson

STATE OF FLORIDA)
) ss.
COUNTY OF Duval)

Before me this 6th day of August, 1999, personally appeared Elliott Richelson known to me to be the person whose name is subscribed to the foregoing Declaration, and acknowledged that he executed the same as his free act and deed for the purposes therein contained.

Beth M. Marten
Notary Public

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